UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/570,831	02/05/2007	Kevin N. Taylor	007412.00104	8780

71867   7590   09/13/2011
BANNER & WITCOFF , LTD
ATTORNEYS FOR CLIENT NUMBER 007412
1100 13th STREET, N.W.
SUITE 1200
WASHINGTON, DC 20005-4051

EXAMINER
ZHOU, YONG

ART UNIT	PAPER NUMBER
2477	

MAIL DATE	DELIVERY MODE
09/13/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/570,831	TAYLOR ET AL.
Office Action Summary	Examiner	Art Unit
	YONG ZHOU	2477

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *11 July 2011*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____ ; the restriction requirement and election have been incorporated into this action.
4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5) ☒ Claim(s) *1-6,8-26 and 29-35* is/are pending in the application.
    5a) Of the above claim(s) _____ is/are withdrawn from consideration.
6) ☐ Claim(s) _____ is/are allowed.
7) ☒ Claim(s) *26,29-31 and 35* is/are rejected.
8) ☒ Claim(s) *1, 2, 5, 6, 8, 9, 12-21 and 23-26* is/are objected to.
9) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10) ☒ The specification is objected to by the Examiner.
11) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____ .
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 11,

2011 has been entered.

Specification

2.   The disclosure is objected to because of the following informalities:

The phrase "for OOB messaging CPE and a CMTS" on page 1, lines 20-21, is

believed to refer to "for OOB messaging **between** CPE and a CMTS".

The phrase "is used to transfer data tunnels tuned to" on page 5, line 23, is

believed to refer to "is used to transfer data **on** tunnels tuned to".

The term "tunnel identifier **96**" on page 7, lines 3 and 5, referring to the last

column of Fig. 4, should be changed to "tunnel identifier **94**".

Drawings

3.   The heading "Tunnel **Type** Identifier" for the last column 94 in Fig. 4 should be

changed to "Tunnel Identifier", as it creates confusion with the heading "Tunnel Type"

for the first column 90 which is the **identifier** identifying the **tunnel type**.

It is stated in the specification, page 6, line 24 through page 7, line 6 that "**The**

tunnel type column 90 identifies the tunnel types of the tunnels identified in the DCD

message 88.   **The tunnel identifiers 94** are unique identifiers associated with each

tunnel type 90. **The tunnel types are common identifiers**, i.e. broadcast, conditional

access, application, etc., ... In contrast, the **tunnel identifier [94] is a unique identifier**

for each tunnel, **regardless of the tunnel type 90 assigned to the tunnel**, such that

the tunnel identifier [94] may be used to differentiate between different tunnels identified

with the same tunnel type 90."

Thus, the appropriate heading for the last column 94 of Fig. 4 should be "Tunnel

Identifier" rather than "Tunnel Type Identifier" in light of the specification.

Claim Objections

4.   Claims 1, 2, 5, 6, 8, 9, 12-21 and 23-26 are objected to because of the following

informalities:

Claims 2, 5, 9, 12, 16-21 and 23 are objected under 37 CFR 1.75(c), as being of

improper dependent form for failing to further limit the subject matter of a **previous**

claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the

clam(s) in proper dependent form, or rewrite the claim(s) in independent form.

Regarding claims 1, 6, 8, 12-15 and 23-26, the term "tunnel **type** identifier"

should be changed to "tunnel identifier" in light of the specification stated above.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5.　　The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.　　Claims 26, 29-31 and 35 are rejected under 35 U.S.C. 103(a) as being

unpatentable over John T. Chapman (US 7,324,515 B1, hereinafter Chapman'515) in

view of Menashe Shahar et al. (US 7,359,434 B2, hereinafter Shahar).

Regarding claim 26, Chapman'515 teaches an apparatus comprising:

a modem configured to scan downstream channels of an information distribution

system for channel information messages and to output a channel information message

identifier included in the channel information message (Fig. 1, #12, #26-28, col. 2, lines

56-67, col. 3, lines 14-21, 27-34 and 56-67, wherein a cable modem termination system

includes in the downstream channel data frames a well-known Ethernet address

preconfigured into a cable modem (CM). The cable modem receives and scans the

downstream channel from the CMTS and detects the Ethernet address included in the

data frames); and

a device configured to instruct the modem to continue scanning of the channel

information message if the channel information message identifier fails to match a

customer premises equipment (CPE) identifier and to tune to one or more tunnels

identified by a network address in the channel information message if the channel

information message identifier matches with the CPE identifier (Fig. 3, #50, #54, #56,

col. 2, 56-67, col. 3, line 65 through col. 4, line 2, col. 4, lines 26-32 and 45-53, wherein

if the well-known Ethernet address detected in a data frame matches the cable

modem's well-known Ethernet address, the cable modem proceeds with one-way

initialization. DOCSIS tuner in the cable modem tunes to a downstream channel and

receives OOB messages identified by the well-known Ethernet address for sending to

the STB client. If a data frame is detected that does not contain the cable modem's well-

known Ethernet address, the cable modem conducts normal two-way DOCSIS

initialization and continues to scan the downstream channel s for the well-known

Ethernet address), wherein a conditional access unit coupled to the device to determine

the channel information message identifier matches with the CPE identifier (col. 2, lines

28-40 and 56-67, col. 3, lines 27-34, col. 4, lines 62-65, wherein the cable modem

includes filters that are preconfigured to receive Ethernet data frames having the cable

modem's well-known Ethernet address included),

wherein the information distribution system is configured to output out-of-band

(OOB) messages and the channel information messages over a network, wherein the

OOB messages are output over the one or more tunnels where each tunnel is identified

with a network address, and each channel information message is output over

downstream channels (Fig. 1, #12-14, Fig. 2, col. 3, lines 1-34 and 41-46, wherein a

proxy at the CMTS sends DOCSIS data frames including channel information and out-

of-band (OOB) messages to multiple cable clients over an Ethernet tunnel, associated

with an IP address),

wherein each channel information message identifies at least a portion of the

network addresses associated with the one or more tunnels provided by the information

distribution system (Fig. 1, col. 2, lines 56-67, wherein the CMTS includes in the

downstream channel data frames a well-known Ethernet address preconfigured into a

cable modem to identify the downstream tunnel to the cable modem).

Chapman'515 does not expressly teach that each channel information message

includes a listing of tunnel types and a listing of tunnel identifies for differentiating

between different tunnels identified with a same tunnel type (Fig. 1, col. 2, lines 56-67,

wherein .

Shahar teaches that a wireless modem termination system (WMTS, a wireless

hub) sends DCD messages to wireless modems (CPEs) over a network over

downstream channels; the DCD message defines all downstream channels utilized by

the WMTS (wireless hub), the DCD message includes a list of channel type and

channel identifiers for downstream channels (Fig, 2, #100-114, col. 3, lines 17-21, col.

4, lines 62-65, col., 6, lines 45-62, Tables 3 & 6).

Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to combine teachings from Shahar into the

Chapman'515 invention to include DCD message over downstream channel for

identifying downstream channels and differentiating data sent on different tunnels to

modem clients.

Regarding claim 29, Chapman'515 further teaches that the device comprises a

set top box (Fig. 1, #26, Fig. 3, #54, STB).

Regarding claim 30, Chapman'515 further teaches that the modem comprises a

cable modem (Fig. 1, #28, Fig. 3, #28, CM).

Regarding claim 31, Chapman'515 further teaches that the information

distribution system comprises a cable modem termination system (Fig. 1, #12, CMTS).

Regarding claim 35, the combination of Chapman'515 and Shahar teaches the

limitations of claim 26, including matching the channel information message identifier to

the coble modem's preconfigured well-known Ethernet address

Chapman'515 does not specifically teach each channel information message

comprises a downstream descriptor (DCD) message.

Shahar teaches that a wireless modem termination system (WMTS, a wireless

hub) sends DCD messages to wireless modems (CPEs) over a network over

downstream channels; the DCD message defines all downstream channels utilized by

the WMTS (wireless hub) (Fig, 2, col. 3, lines 17-21, col., 6, lines 45-62).

Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to combine teachings from Shahar into the

Chapman'515 invention to include DCD message over downstream channel for

identifying downstream channels to enable the cable modems to tune to the appropriate

downstream channel to receive data.

Response to Arguments

7.   Applicant's arguments, filed July 11, 2011, have been considered and the

arguments regarding amended claims 1, 8, and 15 are persuasive. With the amended

claim limitation "each channel information message includes a listing of tunnel types

and a listing of tunnel identifies for differentiating between different tunnels identified

with a same tunnel type but associated with different types of customer premises

equipment (CPE)" included in the independent claims 1, 8 and 15, claims 1-6, 8-25 and

32-34 would be allowable if amended to overcome the objections set forth in this Office

action.

Regarding amended claim 26, Applicant argues that Chapman'515 does not

disclose or suggest a "conditional access unit coupled to the device to determine the

channel information message identifier matches with the CPE identifier," as claimed. In

response, the Examiner respectfully disagrees.   Chapman'515 teaches that the cable

modem includes filters that are preconfigured to receive Ethernet data frames having

the cable modem's well-known Ethernet address included (col. 2, lines 28-40 and 56-

67, col. 3, lines 27-34, col. 4, lines 62-65).

However, claims 26, 29-31 and 35 would be allowable if amended to include the

same added limitation above for claims 1, 8 and 15 and to overcome the objections set

forth in this Office action

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to YONG ZHOU whose telephone number is (571)270-3451. The examiner can normally be reached on Monday - Friday 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag G. Shah can be reached on 571-272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yong Zhou/
Primary Examiner, Art Unit 2477